Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 1 of 65

CASE NO. 12-70079

UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

PHYSICIANS FOR SOCIAL RESPONSIBILITY-LOS ANGELES NATURAL RESOURCES DEFENSE COUNCIL, INC., AND COMMUNITIES FOR A BETTER ENVIRONMENT Petitioners,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, Respondent,

THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, THE SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS Respondent-Intervenors.

PETITIONERS' OPENING BRIEF

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Dated: July 13, 2012

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 2 of 65

CORPORATE DISCLOSURE STATEMENT

Pursuant to Federal Rule of Appellate Procedure 26.1, Petitioners,

Physicians for Social Responsibility-Los Angeles, Natural Resources Defense

Council, Inc., and Communities for a Better Environment state that they are

nonprofit organizations that have no parent companies and are not traded for profit.

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 3 of 65

GLOSSARY

Act Clean Air Act, 42 U.S.C. §§ 7410 et seq.

AQMP Air Quality Monitoring Plan

BC Black Carbon

CARB California Air Resources Board

CO Carbon Monoxide

Manual

District/SCAQMD South Coast Air Quality Monitoring District

EPA United States Environmental Protection Agency ("EPA")

ER Petitioners' Excerpts of Record

General Preamble EPA's General Preamble for the Implementation of Title I

of the Clean Air Act Amendments. 57 Fed. Reg. 13498,

13567 (April 16, 1992)

2007 Guidance Guidance on the Use of Models and Other Analyses for

Demonstrating Attainment of Air Quality Goals for Ozone,

PM2.5, and Regional Haze published by EPA

Health Organizations Petitioners Physicians for Social Responsibility-Los

Angeles, Natural Resources Defense Council, and

Communities for a Better Environment

MATES-II/-III Multiple Air Toxics Exposure Study conducted by

SCAQMD. MATES-III is the 2007 Sequel to MATES-II

NAAQS National Ambient Air Quality Standards

1997 PM2.5 NAAQS Two National Ambient Air Quality Standards for PM2.5

EPA adopted in 1997, expressed in micrograms of PM2.5 per cubic meter of ambient air, averaged over a 24-hour period (short-term exposure) and the other averaged over a

year (long-term exposure)

Case: 12-70079 07/13/2012

Nonattainment area An area designated by EPA as failing to meet a national

ambient air quality standard

NOx Oxides of nitrogen. A class of chemicals considered PM2.

> 5 precursors, which is the term for pollutants that form PM2.5 through a reaction with other pollutants in the

ground-level atmosphere

PM Particulate matter

PM2.5 Fine particulate matter – particulate matter with an

aerodynamic diameter of 2.5 microns or less

PM2.5 Clean Air Fine Particulate Implementation Rule. Assist

Implementation Rule states in creating PM2.5 attainment plans. 72 Fed. Reg.

20,586 (April 24, 2007)

Particles with a diameter of ten micrometers or less PM10

RTP Regional Transportation Plan

State implementation plan. The collection of plans and SIP/PM

Implementation Plan/ individual measures prepared by a state and approved by Plan

EPA, that identifies the state's strategies to achieve the

applicable National Ambient Air Quality Standard

TIP Transportation Implementation Plan

University of California, Los Angeles UCLA

University of Southern California **USC**

VOC Volatile organic compound. A class of chemicals

considered PM2.5 precursors PM2.5

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 5 of 65

TABLE OF CONTENTS

STATEMENT OF CASE1
STATEMENT OF JURISDICTION
ISSUES PRESENTED FOR REVIEW4
STATEMENT OF FACTS4
STANDARD OF REVIEW
STANDING
I. Petitioners Have Suffered an Injury in Fact
II. Petitioners Satisfy Causation Test
III.Claims Will be Redressed by the Relief Sought
ARGUMENT
I. EPA'S Approval of a Plan that does not Include a Complete, Enforceable
Control Strategy Violates The Clean Air Act and Implementing Regulations25
A. The Clean Air Act and Accompanying Regulations Require a Complete
Control Strategy
B. EPA's Reliance on the Act's Narrow Exception for Approving a Plan with an Incomplete Control Strategy is Improper30
C. Even if the Court Finds These "commitments" Formed a Complete Control
Strategy, They are Unenforceable
II. EPA Unlawfully Approved the Plan Despite Undisputed Evidence that Near
Highway Communities will not Breathe Air that Meets Clean Air Standards40
A. Evidence of PM2.5 Concentrations is Relevant40
1. Petitioners Provided Credible Scientific Evidence that Emissions Near
Highways are Higher than Emissions From Background Monitors41

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 7 of 65

TABLE OF AUTHORITIES

Cases

Bayview Hunters Point Community Advocates v. Metropolitan Transp. Comm'n, 366 F.3d 692 (9th Cir. 2004)
BCCA Appeals Group v. U.S. EPA, 355 F.3d 817 (5th Cir. 2003)31, 32, 33, 35
Bernhardt v. County of Los Angeles, 279 F.3d 862 (9th Cir. 2002)23
Biodiversity Legal Foundation v. Badgley, 309 F.3d 1166 (9th Cir. 2002)23
<i>Cerillo-Perez v. INS</i> , 809 F.2d 1419 (9 th Cir. 1987)48
Citizens for a Better Environment v. Deukmejian, 746 F.Supp. 976 (N.D.Cal. 1990)37
Defenders of Wildlife v. Gutierrez, 532 F.3d 913 (D.C. Cir. 2008)25
Del. Valley Citizens Council for Clean Air v. Davis, 932 F.2d 256 (3d Cir. 1991)38
Ecological Rights Foundation v. Pacific Lumber Co., 230 F.3d 1141 (9th Cir. 2000)21
El Comité Para El Bienestar de Earlimart v. Warmerdam, 539 F.3d 1062 (9th Cir. 2008)37
Enviro. Defense Fund, Inc v. U.S. EPA, 167 F.3d 641 (D.C. Cir. 1999)9
Enviro. Defense Fund, Inc v. U.S. EPA, 898 F.2d 183 (D.C. Cir. 1990)48

Enviro. Defense Fund, Inc v. U.S. EPA, 369 F.3d 193 (2nd Cir. 2004)	31, 33, 35
Friends of the Earth v. Gaston Copper Recycling, 204 F.3d 149 (4th Cir. 2000)	22
Friends of the Earth v. Laidlaw, 528 U.S. 167 (2000)	21, 23
<i>Hall v. Norton</i> , 266 F.3d 969 (9th Cir. 2001)	19, 21, 22
Idaho Rural Council v. Bosma, 143 F. Supp. 2d 1169 (D. Idaho 2001)	25
Latino Issues Forum v. U.S. EPA, 558 F.3d 936 (9th Cir. 2009)	17
Lujan v. Defenders of Wildlife, 504 U.S. 555 (1992)	19, 23
Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto Ins. Co., 463 U.S. 29 (1983)	48
NRDC v. South Coast Air Quality Management District, 651 F.3d 1061 (9th Cir. 2011)	38
NRDC v. U.S. EPA, 526 F.3d 591 (9th Cir. 2008)	48
NRDC v. U.S. EPA, 638 F.3d 1183 (9th Cir. 2011)	41
NRDC v. U.S. EPA, 507 F.2d 905 (9th Cir. 1974)	19
NRDC v. U.S. EPA, 542 F.3d 1235 (9th Cir. 2008)	24
Plan for Arcadia, Inc. v. Anita Assocs., 501 F.2d 390 (9th Cir. 1974)	38

Safe Air for Everyone v. EPA, 488 F.3d 1088 (9th Cir. 2007)8
A.L. Pharma v. Shalala, 62 F.3d 1484 (D.C. Cir. 1995)48
Sierra Club v. U.S. EPA, 346 F.3d 955 (9th Cir. 2003)46
Sierra Club v. Morton, 405 U.S. 727 (1972)
Sierra Club v. U.S. EPA, 671 F.3d 955 (9th Cir. 2012)17
Swan v. Clinton, 100 F.3d 973 (D.C. Cir. 1996)25
Union Elec. Co. v. U.S. EPA, 427 U.S. 246 (1976)4
United States v. SCRAP, 412 U.S. 669 (1973)
Valley Forge Christian Coll. v. Ams. United for Separation of Church & State, Inc.,
454 U.S. 464 (1982)
Virgil v. Leavitt, 381 F.3d 826 (9th Cir. 2004)17
Warth v. Seldin, 422 U.S. 490 (1975)23
Statutes
5 U.S.C. § 706(2)(A)17
23 U.S.C. § 134(i)(plan)

U.S.C. § 134(j)(TIP)
U.S.C. § 7401(b)
U.S.C. § 7407(a) 5, 41, 47
U.S.C. § 7407(d)5
U.S.C. § 7408(f)28
U.S.C. § 74094
U.S.C. § 7410(a)(1)
U.S.C. § 7410(a)(2)(A)6, 25
U.S.C. § 7410(k)(3)
U.S.C. § 7410(k)(4)30
U.S.C. § 7501(1)
U.S.C. § 7502(a)38
U.S.C. § 7502(b)39
U.S.C. § 7502(c)38
U.S.C. § 7502(c)(1)
U.S.C. § 7502(c)(2)
U.S.C. § 7502(c)(6)
U.S.C. § 7506(c)(2)(C)
U.S.C. § 7545(c)(4)(C)28
U.S.C. § 7602(k)39
U.S.C. § 7602(1)39

42 U.S.C. § 7602(p)	39
42 U.S.C. § 7604	37, 39
42 U.S.C. § 7604(a)	8
42 U.S.C. § 7604(f)	39
42 U.S.C. § 7604(f)(3)	38
42 U.S.C. § 7604(f)(4)	38
42 U.S.C. § 7607(b)(1)	3, 17
42 U.S.C. § 7607(f)	49
49 U.S.C. § 5303(f)	8
Other Authorities	
U.S. EPA, "Final Technical Support Document and Response to Con	nments: Final
Rulemaking Action on the South Coast 2007 AQMP for PM2.5 and	d the South
Coast Portions of the Revised 2007 State Strategy, at 71 (Sept. 30,	2011) passi,
Regulations	
40 C.F.R. § 51.100(n)	28
40 C.F.R. § 51.105	6
40 C.F.R. § 51.111	28
40 C.F.R. § 51.112(a)	27
40 C.F.R. § 51.281	6
40 C F R 8 51 1000	14

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 12 of 65

40 C.F.R. § 51.1007(a)
40 C.F.R. § 51.1007(b)29
40 C.F.R. § 81.305
40 C.F.R. § 93.101
40 C.F.R. § 93.118(a)
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40 C.F.R. pt. 939
Federal Register
57 Fed.Reg. 13,498 (April 16, 1992)
62 Fed.Reg. 38,652 (July 18, 1997)5
66 Fed.Reg. 57160 (Nov. 14, 2001)35
71 Fed.Reg. 61,114 (Oct. 17, 2006)
72 Fed.Reg. 20,586 (Apr. 25, 2007)
75 Fed.Reg. 71924 (Nov. 22, 2010)15
76 Fed.Reg. 41,562 (July 14, 2011)
76 Fed.Reg. 69928 (Nov. 9, 2011)
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Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 13 of 65

STATEMENT OF CASE

Petitioners Physicians for Social Responsibility-Los Angeles, Natural Resources Defense Council, and Communities for a Better Environment (collectively "Health Organizations") are concerned about and injured by harmful particulate matter ("PM") pollution in the South Coast Air Basin. Under the Clean Air Act ("Act"), the State Implementation Plan ("SIP" or "PM Implementation Plan") is supposed to be the roadmap for achieving federal healthbased National Ambient Air Quality Standards ("NAAQS" or "clean air standards") on time. In the present situation, the roadmap for meeting clean air standards stops short of reaching its target in general, and completely ignores more than a million people who breathe in one the nation's most polluted airsheds.

In particular, despite a Congressional mandate to include a specific, enforceable control strategy designed to bring an area into attainment of the clean air standards on time, the PM Implementation Plan relies on open-ended, vague goals. Apparently unable or unwilling to come up with a concrete plan to develop enforceable strategies and measures to reduce the requisite amount of pollution, California simply declared its intention—its "commitment" in the words of the PM Implementation Plan—to reduce enough pollution to attain the standard. This proclamation is not a plan; it's an aspiration.

South Coast includes all of Orange County and the urban portions of Los Angeles, Riverside and San Bernardino Counties. See generally 40 C.F.R. § 81.305.

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 14 of 65

Because the PM Implementation Plan does not include a complete control strategy, not only is the South Coast Air Basin unlikely to meet the standard on time, but also California cannot be held accountable if it fails to implement all or part of the strategy. Given past failures to meet clean air standards on time despite decades of lead time,² the residents of the South Coast Air Basin cannot afford to miss another deadline. Particulate pollution causes serious health effects, including asthma, heart attacks, and even premature death. Every year we fail to meet clean air standards the result is otherwise avoidable sickness and premature death for thousands of residents of the South Coast Air Basin.

Even in the unlikely event that the South Coast Air Basin attains the clean air standards by April 2015 (an extension of five years from the original deadline), the PM Implementation Plan would still have failed to protect the more than a million residents in the region harmed by high levels of particulate pollution near highways. Ample scientific evidence shows particulate pollution near heavily trafficked roadways is higher than background levels. By neither monitoring

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² The South Coast Air Basin was supposed to attain the 1-hour ozone standard by November 15, 2010. *See* 76 Fed. Reg. 82,133, 82,136 (Dec. 30, 2011) (denoting the attainment date for the South Coast Air Basin and the San Joaquin Valley Air Pollution Control District as November 15, 2010). As result, EPA determined that the South Coast Air Basin had failed to attain the standard on time. *Id.* at 82,133. Here, the deadline for meeting the NAAQS for Particulate Matter less 2.5 micrometers ("PM 2.5") was April 2010, which the South Coast Air Basin missed, though this rulemaking extends the date to April 2015. ER-87 [U.S. EPA, "Final Technical Support Document and Response to Comments: Final Rulemaking Action on the South Coast 2007 AQMP for PM 2.5 and the South Coast Portions of the Revised 2007 State Strategy, at 71 (Sept. 30, 2011)(hereinafter "TSD")].

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 15 of 65

particulate pollution near these roadways nor including supplemental analysis that clean air standards will be met in this area, the plan does not—and cannot—ensure that *all* residents in the South Coast Air Basin will breathe air that meets federal clean air standards. Instead of addressing the Plan's failure to protect these near highway residents, California and Environmental Protection Agency ("EPA") simply provide unsubstantiated rationales for why they should turn a blind eye to the requirements of the Clean Air Act.

Because EPA approved a PM Implementation Plan that failed to ensure California's compliance with the Clean Air Act thereby avoiding the serious, even fatal, effects of particulate pollution, Health Organizations respectfully request that the Court vacate EPA's approval and instruct EPA to ensure the violations are remedied.

STATEMENT OF JURISDICTION

This is a petition for review of a final action the EPA made under the Clean Air Act. This Court has jurisdiction pursuant to section 307 of the Clean Air Act which provides that a petition for review of a "final action of the [EPA] Administrator. . . which is locally or regionally applicable" may be filed "only in the United States Court of Appeals for the appropriate circuit." 42 U.S.C. § 7607(b)(1).

A petitioner must file a petition for review within 60 days from the date the notice of the final action appeared in the Federal Register. *Id.* EPA finalized its

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 16 of 65

approval of the 2007 PM Implementation Plan for the South Coast Air Basin on November 9, 2011. Excerpts of Record ("ER"), at 1 [76 Fed. Reg. 69,928 (Nov. 9, 2011)]. Petitioners timely filed a petition for review.

ISSUES PRESENTED FOR REVIEW

- 1) Whether EPA acted arbitrarily, capriciously and illegally by approving a PM Implementation Plan that lacked sufficient enforceable strategies to demonstrate attainment.
- 2) Whether EPA acted arbitrarily, capriciously and illegally by approving the attainment demonstration and the Emissions Budgets based on a flawed attainment analysis.

STATEMENT OF FACTS

Statutory Background

Congress enacted the Clean Air Act as "a drastic remedy to what was perceived as a serious and otherwise uncheckable problem of air pollution," *Union Elec. Co. v. EPA*, 427 U.S. 246, 256 (1976). Congress intended to protect and enhance the nation's air quality in order to promote public health and welfare. 42 U.S.C. § 7401(b). To achieve this objective, Congress imposed a carefully calibrated system under which EPA promulgates national ambient air quality standards ("NAAQS" or "clean air standards") for harmful air pollutants that are intended "to protect public health" with "an adequate margin of safety." 42 U.S.C. § 7409. EPA designates areas as either "attainment" or "nonattainment" based on

whether they meet the clean air standards for a particular pollutant. 42 U.S.C. § 7407(d). Congress' system also requires States to develop attainment plans, or State Implementation Plans ("SIP" or "Plan"), to attain the NAAQS for "the entire geographic area comprising such State," as required by Clean Air Act section 107(a). 42 U.S.C. § 7407(a) (emphasis added).

On July 18, 1997, EPA promulgated 24-hour and annual standards for PM2.5. ER-39 [62 Fed. Reg. 38,652 (July 18, 1997)]. The 24-hour PM2.5 standard was set at 65µg/m³ and the annual standard was set at 15 µg/m³.³ In order to provide guidance to states on PM2.5 attainment plans, EPA promulgated the Clean Air Fine Particulate Implementation Rule ("PM2.5 Implementation Rule"). 40 C.F.R. part 51, subpart Z; ER-40 [72 Fed. Reg. 20,586 (April 25, 2007)]. The PM2.5 Implementation Rule covers most Clean Air Act requirements for PM2.5 plans.

Attainment plans include two essential components. First, the plan "shall" provide an attainment demonstration, whereby the plan demonstrates that the suite of strategies will reduce pollution sufficient to meet the 1997 PM2.5 NAAQS by the attainment deadline. 42 U.S.C. § 7502(c)(1); 40 C.F.R. § 51.1007(a). According to the *Guidance on the Use of Models and Other Analyses for Demonstrating Attainment of Air Quality Goals for Ozone, PM2.5, and Regional*

³ The 24-hour PM2.5 standards was revised in 2006, but this litigation does not concern attainment of that standard. *See* 71 Fed. Reg. 61,114 (Oct. 17, 2006).

Haze, ("2007 Guidance Manual"), there are two components in an attainment demonstration: 1) a modeled attainment test, and 2) supplemental analyses. ER-61 [2007 Guidance Manual at 15]. The degree of supplemental analysis needed depends on what the projected levels of pollution will be at the attainment date with higher emissions requiring more substantial analysis. ER-181 [TSD at 52].⁴

Second, the plan "shall" include enforceable strategies, including enforceable emissions standards and limitations and enforceable commitments to adopt such measures, to achieve the emissions reductions necessary to demonstrate attainment. 42 U.S.C. §§ 7410(a)(2)(A), 7502(c)(6).

The regulations implementing the Clean Air Act echo the mandate that the PM Implementation Plan must contain enforceable measures. *See* 40 C.F.R. § 51.281 ("Emission limitations and other measures necessary for attainment ... must be adopted as rules and regulations enforceable by the State agency" and copies of those rules and regulations "must be submitted with the plan"); *id.* § 51.105 ("Revisions of a plan, or any portion thereof, will not be considered part of an applicable plan until such revisions have been approved by the Administrator in accordance with this part.").

⁴ The TSD for the Final Rule at issue in this case excerpts a chart showing the level of analysis EPA recommends depending on what the projected concentrations of pollution are in the attainment year. ER-__ [TSD at 52].

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 19 of 65

Congress directs state and local agencies to implement their attainment plans to ensure steady progress toward the goal of attaining the standards by the applicable deadline. 42 U.S.C. §§ 7501(1), 7502(c)(2).

The General Preamble sets forth four fundamental principles for SIPs: SIP control measures must be quantifiable, enforceable, replicable, and accountable. ER-34, 37-38 [57 Fed. Reg. 13,498, 13,567-568 (April 16, 1992)]. Enforceable measures means that the measures are "duly adopted, and specify clear, unambiguous, and measurable requirements." ER-38 [57 Fed. Reg. at 13,568]. "A legal means for ensuring compliance must also exist for a measure to be enforceable." *Id.* The practicality of determining compliance is a factor. "A regulatory limit is not enforceable if, for example, it is impractical to determine compliance with the published limit." ER-38 [*Id.*]. EPA further explains the concept of enforceability:

In general, for a SIP regulation to be enforceable, it must clearly spell out which sources or source types are subject to its requirements and what its requirements (work practices, emission limits, etc.) are. The regulation also needs to specify the time frames within which these requirements must be met, and must definitively state recordkeeping and monitoring requirements appropriate to the type of sources being regulated. The recordkeeping and monitoring requirements must be sufficient to allow determinations on a continuing basis whether sources are complying. An enforceable regulation must also contain test procedures in order to determine whether sources are in compliance.

ER-35 [Id. at 13,502].

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 20 of 65

If EPA finds that a SIP submission is inadequate, EPA must disapprove, in whole or in part, the submission. 42 U.S.C. § 7410(k)(3). Once an adequate SIP is approved by EPA, it has "the force and effect of federal law." *Safe Air for Everyone v. EPA*, 488 F.3d 1088, 1091 (9th Cir. 2007). Approved SIPs are enforceable in federal court by citizens under section 304(a) of the Clean Air Act, 42 U.S.C. § 7604(a). *Bayview Hunters Point Community Advocates v. Metropolitan Transp. Comm'n*, 366 F.3d 692, 695 (9th Cir. 2004). However, citizens may only enforce strategies, not a plan's objectives or aspirational goals. *Id.* at 701.

Another important part of a clean plan are the regional limits on allowable vehicle emissions known as "motor vehicle emissions budgets" ("emissions budgets").⁵ To qualify for federal transportation funding, a metropolitan area must adopt, and periodically update, a regional transportation plan ("RTP") that envisions the future transportation system to be developed with anticipated funds over a 20 year planning horizon, and a transportation improvement program ("TIP") that schedules and allocates funds for the implementation of the projects and services in the plan. 23 U.S.C. § 134(i)(plan), (j)(TIP); 49 U.S.C. § 5303(f).

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⁵ "Motor vehicle emissions budget is that portion of the total allowable emissions defined in the submitted or approved control strategy implementation plan revision or maintenance plan for a certain date for the purpose of meeting reasonable further progress milestones or demonstrating attainment or maintenance of the NAAQS, for any criteria pollutant or its precursors, allocated to highway and transit vehicle use and emissions." 40 C.F.R. § 93.101.

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 21 of 65

EPA's conformity regulations promulgated pursuant to section 176(c)(4) of the Clean Air Act provide the "criteria and procedures" for determining whether a transportation plan and TIP conform. 40 C.F.R. Pt. 93. The finding of conformity includes a demonstration that motor vehicle emissions from the planned transportation system will not exceed the approved emissions budget. 40 C.F.R. § 93.118(a). Thus the emissions budgets impose important legal obligations on transportation agencies that must be satisfied before transportation plans and programs may be approved or qualify for federal funding. Individual transportation projects may not be approved or funded unless they come from a currently conforming plan and TIP. 42 U.S.C. § 7506(c)(2)(C); *EDF v. EPA*, 167 F.3d 641, 645-50 (D.C. Cir. 1999).

Factual Background

The South Coast Air Quality Management District ("SCAQMD" or "District") summarized the evidence showing the adverse health effects of PM2.5 in the PM Implementation Plan.

A consistent correlation between elevated ambient fine particulate matter (PM10 andPM2.5) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In recent years, studies have reported an association between long-term exposure to air pollution dominated by fine particles (PM2.5) and increased mortality, reduction in life-span, and an increased mortality from lung cancer... Recent studies show lung function growth in children is reduced with long-term exposure to particulate matter.

The elderly, people with pre-existing respiratory and/or cardiovascular

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 22 of 65

disease and children appear to be more susceptible to the effects of PM10 and PM2.5.

ER-65 [SCAQMD, Final 2007 Air Quality Management Plan, at 2-11, (June 1, 2007) ("AQMP")].

Particulate Pollution from Highways

Evidence that highway emissions have a significant impact on air quality near highways is not new. The Multiple Air Toxics Exposure Study-II ("MATES-II") conducted by the SCAQMD first identified the importance of highway emissions in 2000. ER-114. The monitoring and modeling results from MATES-II established the significance of diesel particulate as the largest source of cancer risk in the air basin, and also provided important findings demonstrating that the greatest exposure to diesel PM occurs at locations where "the dominance of mobile sources is even greater than at other sites." ER-114. MATES-II was a significant advance in the science of toxic air pollution because it included extensive monitoring throughout the air basin to verify the validity of results from a modeling study for the South Coast Air Basin. MATES-II monitoring data confirmed that "model results, which are more complete in describing risk levels. . . than is possible with the monitored data, show that the higher risk levels occur. . . near freeways." ER-114. The results of the study showed that the "higher pollutant concentrations generally occur near their emission sources." ER-114. Based on these observations, MATES-II concluded that "[f]or mobile source compounds

such as benzene, 1-3 butadiene, and particulates associated with diesel fuels, higher concentration levels are seen along freeways and freeway junctions." ER-114. This work identified the near-highway environment as a high risk environment where elevated levels of PM, and related adverse health effects, would be expected because of emissions from diesel vehicles.

These results triggered further research in the region. A team from the University of Southern California ("USC") and University of California Los Angeles ("UCLA") conducted major studies to measure the concentrations of highway pollutants as a function of distance from the I-710 and I-405 freeways. ER-114-15. Both studies included measurements of concentrations of carbon monoxide ("CO") and black carbon ("BC") at increasing distances from the freeway. CO and BC were selected because their ambient concentrations are strongly linked to vehicle emissions. BC (measured as elemental carbon (EC) in the monitoring reported in MATES-II and its 2007 sequel, MATES-III), is a species of PM2.5 that was used in MATES-II as a measure of diesel PM in the Air Basin. USC/UCLA's freeway studies demonstrate a dramatic increase in BC/EC near highways.

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⁶ MATES-III reported more recent investigations showing that elemental carbon is not a complete measure of diesel PM, and that a more precise method using chemical mass balance shows that total diesel PM is at least 72% greater than measurements of elemental carbon would suggest. ER-115. The PM Implementation Plan relies on the MATES-III data to identify elemental carbon as

DktEntry: 23-1 Page: 24 of 65 Case: 12-70079 07/13/2012 ID: 8250478

These two studies allow for a comparison of results from a heavily traveled

highway with traffic dominated by light duty vehicles (I-405), and a highway with some of the highest truck traffic of any highway in the U.S. (I-710), which serves as major access point for the diesel trucks servicing the ports of Los Angeles and Long Beach). Relative concentrations of CO and BC near the freeways tracked each other as distance from the freeway increased. These studies show that in the impact zone downwind of a heavily traveled freeway in the Air Basin with average truck traffic (I-405), emissions of BC from the freeway will add $4.75 \,\mu\text{g/m}^3$ to PM2.5 at 30 meters from the freeway dropping off to 0.65 µg/m³ greater than the regional concentration at 300 meters, and that a freeway with heavy truck traffic (I-710) will add 12.5 µg/m³ at 30 meters dropping off to 1.9 µg/m³ increase above the regional levels at 300 meters. ER-115-116. Thus, the study demonstrated that the highway with more truck traffic (i.e., the I-710) had higher levels of particulate pollution.

The incremental effect of highway emissions downwind from the I-710 have been confirmed by data reported as a result of the deployment by the California Air

one of the six major species of PM2.5 in the South Coast Air Basin that contribute significantly to PM2.5 nonattainment. ER-115.

⁷ Average traffic flow on the I-405 during the sampling periods was 13,900 vehicles per hour. Traffic primarily was dominated by gasoline-powered cars and light trucks, and less than 5% of vehicles observed were heavy-duty diesel trucks. On the I-710 freeway, average traffic flow during sampling periods was 12,180 vehicles per hour with more than 25% of vehicles being heavy-duty diesel trucks.

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 25 of 65

Resources Board ("CARB") of Mobile Monitoring Platform Results in the I-710 corridor. *See* ER-116. Results from this investigation include BC concentrations within the so-called buffer zone of 500 feet from the freeway compared with results measured beyond the 500 feet buffer. Concentrations measured in West Long Beach residential area on the morning of July 17, 2007, show nearly a fourfold greater BC level within 500 feet from the I-710 freeway compared to the same neighborhood outside the 500 feet zone (18 μg/m³ versus 5 μg/m³). ER-116. This difference of 13 μg/m³ is highly consistent with the upwind/downwind results reported in USC's 2001 710 study. In addition, numerous studies from other areas of the country outlined in Petitioners' comments confirmed the results of higher concentrations near highways. *See* ER-116-119.

Finally, a draft technical report commissioned by NRDC, which examined the studies on concentrations of pollution near highways showed that PM2.5 levels are elevated near major roadways. ER-135 [Gould Technical Report at 5-8].

Lack of Permanent Near Roadway Monitoring

Not even one of the monitors in the South Coast Basin used to determine the amount of emission reductions needed to attain the NAAQS are located within the 300-meter high pollution zone near a major highway. *See* ER-119-121. As a result, the "design value" used to develop the control strategy for the SIP does not account for the increased PM2.5 near major highways. The "design value" is "the highest of the three-year average concentrations calculated for the monitors in the

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 26 of 65

area." 40 C.F.R. § 51.1000. As the highest concentration, the "design value" dictates the strategies to reduce pollution to meet the NAAQS.

The design values among the network were at sites not located within 300 meters of a major highway, and accordingly, these sites does not account for the elevated concentrations measured near highways. The control strategy in the PM Implementation Plan is designed to reduce concentrations at the Rubidoux station to meet the annual PM2.5 NAAQS standard at 15 µg/m³. But in the neighborhoods within the 300 meter high impact zone, an adequate control strategy would also need to reduce the higher concentrations near roadways—from 4 to 12.5 µg/m³ *above* the background level, depending on the density of truck traffic on the highway—added by highway emissions.

Public Health Consequences are Significant

The public health consequences of omitting the localized air quality impacts of highway emissions from the control strategy are substantial because the population exposed in the near-highway environment is huge. Health Organizations estimate that more than 1 million people reside within 300 meters of a heavily trafficked highway in the South Coast air basin. ER-122. These numbers do not include many other locations of long-term exposure such as schools.

Prior Administrative Proceedings

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 27 of 65

On November 28, 2007, the SCAQMD and CARB submitted the PM Implementation Plan to attain the annual and 24-hour PM2.5 standard to EPA. ER-186 [TSD at 61]. On November 22, 2010, EPA proposed to approve in part and disapprove in part the 2007 South Coast PM2.5 plan to attain the 24-hour PM2.5 standard and the related portions of the 2007 State Strategy, as amended in 2009. ER-63 [75 Fed. Reg. 71,294 (Nov. 22, 2010)]. EPA proposed to disapprove the attainment demonstration "as not meeting the applicable requirements of the [Clean Air Act] and the PM2.5 implementation rule because it relied too extensively on enforceable commitments to reduce emissions in place of fullyadopted and submitted rules." ER-30-31 [76 Fed. Reg. 41,562, 41,565] (July 14, 2011)]; ER-63 [75 Fed. Reg. 71,294]. As a result, EPA also proposed to disapprove the Reasonably Available Control Measures/Technology and Reasonable Further Progress demonstrations, as well the contingency measures and the transportation conformity motor vehicle emissions budgets. Finally, EPA proposed not to grant California's requested five-year extension to attain the NAAQs. *Id.* On January 21, 2011, Petitioners Health Organizations submitted comments on EPA's proposed action. ER-72.

On July 14, 2011, EPA reversed course and proposed to approve most of the 2007 South Coast PM2.5 plan to attain the 24-hour PM2.5 standard and the related portions of the 2007 State Strategy, as amended in 2009 and 2011. ER-30 [76 Fed. Reg. at 41,562]. EPA proposed to approve most of the plan, except for the

contingency measures and the assignment of 10 tpd of pollution reductions to the federal government. *Id.* On August 15, 2011, Petitioners Health Organizations again submitted comments, this time on EPA's new proposed action. ER-97.

On November 9, 2011, EPA issued its final approval of the 2007 South Coast PM2.5 plan to attain the 24-hour PM2.5 standard and the related portions of the 2007 State Strategy, as amended in 2009 and 2011. ER-1 [76 Fed. Reg. 69928 (Nov. 9, 2011)].

When the PM Implementation Plan modeled future attainment, including all the identified strategies and the State's "commitment" to adopt currently unknown reduction measures—the model predicted that three of the PM monitoring locations designated to show compliance with the PM standard would show PM levels between 14.9 μ g/m³ and 15 μ g/m³. ER-68 [Final AQMP, Appendix V, 2-53].8 Since, the annual PM2.5 standard requires 15μ g/m³, there is a very small margin for error at the two sites that are predicted to have levels of 14.9 μ g/m³ and no margin of error at the site measuring 15 μ g/m³. Overall, the PM Implementation Plan predicts that the standard will be met by only a tiny margin at four sites (Burbank (14.9 μ g/m³), Compton (14.5 μ g/m³), Fontana (14.7 μ g/m³), and Los Angeles (14.9 μ g/m³); and, at the Rubidoux station, there is no margin between the projected estimated air quality level and the annual PM2.5 clean air

⁸ The chart is summarized by including the 5 highest levels and the projected future PM2.5 mass.

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 29 of 65

standard.

On January 9, 2012, Petitioners Health Organizations filed this timely appeal.

STANDARD OF REVIEW

Jurisdiction to review EPA approval of the PM2.5 Plan is provided by 42 U.S.C. § 7607(b)(1). See Virgil v. Leavitt, 381 F.3d 826, 833 (9th Cir. 2004). The Clean Air Act does not specify a standard of review, and courts therefore "apply the general standard of review for agency actions in the Administrative Procedure Act" ("APA"). Id. According to the APA, 5 U.S.C. § 706(2)(A), EPA's decision may not be "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the law." In other words, EPA is required to "articulate a rational connection between the facts found and the choice made." Sierra Club v. United States EPA, 671 F.3d 955, 961 (9th Cir. 2012) (quoting Latino Issues Forum v. EPA, 558 F.3d 936, 941 (9th Cir. 2009)). The court "review[s] the record to ensure that agency decisions are founded on a reasoned evaluation of the relevant factors, and may not rubberstamp. . . administrative decisions that [are] inconsistent with a statutory mandate or that frustrate the congressional policy underlying a statute." *Id.* (internal quotations and citations omitted).

STANDING

Petitioner Health Organizations' members and staff currently reside, work, recreate and/or travel in the South Coast Air Basin, which has been designated as

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 30 of 65

severe nonattainment for the pollutant PM2.5. *See* Declarations filed herewith [Addendum ("Add.")-54-75]. On behalf of these members, Petitioner Health Organizations have standing to challenge EPA's approval of the PM Implementation Plan because their members and staff will be harmed by a plan that fails to include a real, enforceable control strategy, and does not remedy violations of clean air standards near highways. Without a complete and legally enforceable SIP, it is impossible to provide clean air for the residents of the South Coast Air Basin who suffer daily from living, working, and playing in a severe nonattainment zone. By approving this plan, EPA violated sections 110(a)(1) and 172(c) of the Clean Air Act. 42 U.S.C. § 7410(a)(1) and §7502(c)(6).

Moreover, as outlined in several declarations, this litigation falls within the mission of the three Petitioner Health Organizations. *See* Declaration ("Decl.") of William Gallegos, at ¶ 4 [Add-74]; Decl. of Linda Lopez, at ¶ 4 [Add-65]; Decl. of Martha Dina Arguello, at ¶ 4 [Add-67].

This Court has construed standing to require that parties seeking resolution of a dispute have a stake in the outcome:

The standing inquiry focuses upon "[w]hether a party has a sufficient stake in an otherwise justiciable controversy to obtain judicial resolution of that controversy," *Sierra Club v. Morton*, 405 U.S. 727, 731 (1972), and serves to ensure that "legal questions presented to the court will be resolved...in a concrete factual context conducive to a realistic appreciation of the consequences of judicial action." *Valley Forge Christian Coll. v. Ams. United for Separation of Church & State, Inc.*, 454 U.S. 464, 472 (1982).

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 31 of 65

Hall v. Norton, 266 F.3d 969, 975 (9th Cir. 2001). Here, Petitioner Health Organizations meet all the criteria.

I. Petitioners Have Suffered an Injury in Fact.

The first test for determining petitioners' stake requires a party to "have suffered an 'injury in fact'-an invasion of a legally-protected interest which is (a) concrete and particularized...and (b) "actual or imminent, not 'conjectural' or 'hypothetical." *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560 (1992) (internal citations omitted). This Court's expansive case law supports the conclusion that the evidence of adverse health effects filed by Petitioner Health Organizations demonstrates that their members suffer "concrete," "particularized" and "imminent" injuries from air pollution. Due to EPA's decision to approve a legally and functionally deficient SIP, these injuries cannot be properly addressed. The Act creates the legally enforceable interest in having air pollution concentrations reduced to comply with the NAAQS through an adequate SIP. EPA's approval denies those living in the South Coast Air Basin this protection.

This Court has long recognized that people such as Petitioner Health Organizations' staff and members "will suffer injury if compelled to breathe air less pure than that mandated by the Clean Air Act." *NRDC v. EPA*, 507 F.2d 905, 910 (9th Cir. 1974) (*citing United States v. SCRAP*, 412 U.S. 669, 687 (1973)). This is precisely the harm that occurs due to EPA's refusal to require California to create a complete, legally enforceable SIP that will achieve timely attainment. By

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 32 of 65

approving a SIP that fails to provide adequate measures, the government is condemning citizens of the South Coast Air Basin to continue breathing polluted air.

Petitioner Health Organizations' members aver that when they breathe the air in the South Coast Air Basin, it causes them various concrete and tangible forms of physical injury and discomfort from asthma attacks and difficulty breathing, to loss of school time. Decl. of Hermine Fuerst Garcia, at ¶ 4 [ADD-59]; Decl. of Cassandra Perez, at ¶ 4 [ADD-55]. Petitioner Health Organizations' members curtail physical exercise and outdoor activities due to high pollution concentrations, lessening their quality of life and impairing recreational opportunities. Decl. of Hermine Fuerst Garcia, at ¶ 4 [ADD-59]; Decl. of Olga Moedano, at ¶ 11[ADD-70]; Decl. of Fernando Cuevas at ¶ 6 [ADD-63]; Decl. of Felix Aguilar, at ¶ 4 [ADD-61].

EPA has determined that individuals experience various acute effects from a single exposure to elevated fine particle concentrations, depending on level of exertion, preexisting respiratory disease, and physiological responsiveness to particulate matter. *See* 72 Fed. Reg. 20,586, 20,587 (April 25, 2007). Chronic respiratory damage from repeated exposures is a separate and additional injury. People with heart or lung diseases, children and older adults are the most likely to be affected by particle pollution exposure. However, even if you are healthy, you may experience temporary symptoms from exposure to elevated levels of particle

pollution. *See Id.* ("More detailed information on health effects of PM2.5 can be found on EPA's Web site at: http://www.epa.gov/air/urbanair/pm/index.html [now redirected to: http://www.epa.gov/oar/particlepollution/]").

Further, this Court's application of the Supreme Court's environmental standing decision in *Friends of the Earth v. Laidlaw*, 528 U.S. 167 (2000), found standing if an area would "remain environmentally degraded." *Ecological Rights Foundation v. Pacific Lumber Co.*, 230 F.3d 1141, 1149 (9th Cir. 2000). "Under *Laidlaw*, then, an individual can establish 'injury in fact' by showing a connection to the area of concern sufficient to make credible the contention that the person's future life will be less enjoyable - that he or she really has or will suffer in his or her degree of aesthetic or recreational satisfaction - if the area in question *remains* or becomes environmentally degraded." *Id.* (emphasis added). It is not necessary that the action being challenged make the harm worse. It is enough that environmental degradation has already occurred, and that the action being challenged would continue to adversely affect petitioners' future lives.

The Court re-affirmed that merely the anticipated exposure to the future adverse effects of air pollution is enough to establish standing. *Hall*, 266 F.3d at 976 ("Hall, in averring that his respiratory discomfort will be aggravated by emissions from developments on former BLM lands, asserts an injury that is sufficiently concrete and particularized to satisfy standing.").

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 34 of 65

It follows that evidence of a credible threat to the plaintiff's physical well-being from airborne pollutants falls well within the range of injuries to cognizable interests that may confer standing. See [Friends of the Earth v.] Gaston Copper Recycling, 204 F.3d [149, 154 (4th Cir. 2000) (en banc)] (holding that environmental plaintiffs can establish justiciable injury based on injuries ranging from tortious personal injury to less traditional claims of injury, such as impairment of recreational and aesthetic enjoyment).

Hall, 266 F.3d at 976. If "a credible threat to [petitioners'] physical well-being from airborne pollutants falls well within the range of injuries to cognizable interests that may confer standing," it naturally follows that petitioners' evidence of both actual adverse health effects and continued pollutant exposure constitutes an interest that is at least as concrete and direct, if not more so. *Id*.

As in *Hall*, Petitioner Health Organizations' challenge to EPA's approval of the SIP is based on evidence that future emissions cannot be reduced to the levels required for attainment without an adequate SIP. *See* Statement of the Case, *infra*. Thus standing is also based on evidence that the harm currently suffered by Petitioners cannot be addressed, and is in fact ignored and masked, by EPA's refusal to require the creation of an adequate SIP.

Those who are currently residing in the South Coast Air Basin clearly suffer from exposure to high levels of fine particles. EPA has already determined by rule that these very exposures are harmful to public health. Those who litigate in an effort to protect themselves from this harm by seeking full implementation of statutory programs required by Congress specifically to remedy this on-going injury, necessarily have a "sufficient stake" in this controversy to confer standing.

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 35 of 65

Such a stake is also "particularized" within the meaning of *Lujan*, 504 U.S. at 560, n.1, ("particularized" injury means that "the injury must affect the plaintiff in a personal and individual way"), because each declarant experiences a unique personal harm from exposure to fine particle pollution. That the injury caused by air pollution may be shared by most people does not deprive each injured person of a particularized injury. *See Sierra Club v. Morton*, 405 U.S. at 734 ("The fact that particular environmental interests are shared by the many rather than the few does not make them less deserving of legal protection through the judicial process."); *SCRAP*, 412 U.S. at 687 ("Standing is not to be denied simply because many people suffer the same injury."); *accord Warth v. Seldin*, 422 U.S. 490, 501 (1975).

II. Petitioners Satisfy Causation Test.

The causation test requires that "the injury is fairly traceable to the challenged action of the defendant." *Bernhardt v. County of Los Angeles*, 279 F.3d 862, 868 (9th Cir. 2002) (quoting *Laidlaw*, 528 U.S. at 180-81). In cases challenging agency action that fails to fully implement remedial measures required by statute, this Court has not required a showing that the agency action causes the environmental harm that is the source of a party's injury. Rather, causation arises from an agency's failure to implement the required remedies. For example, in *Biodiversity Legal Foundation v. Badgley*, 309 F.3d 1166, 1172 (9th Cir. 2002), the Court implicitly found causation sufficient for standing based on agency failure to implement the remedial steps required by the Endangered Species Act to protect

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 36 of 65

threatened species because the agency failure "will result in continued threats to their existence." *See also NRDC v. U.S. EPA*, 542 F.3d 1235, 1245-1246 (9th Cir. 2008) (finding standing proper in terms of redressability and traceability as long as the type of pollution causing their injury is what the regulation is meant to address and that the regulation will likely reduce the risk of their injury).

Here, Petitioners Health Organizations' members' injuries are affected by EPA's decision to approve the flawed SIP. It is well understood that air pollution causes real harm, including the types of harms described by Petitioner Health Organizations' members. Such harm will not and cannot be adequately remedied by a SIP without enforceable control measures or addressing violations of clean air standards near heavily trafficked roadways. EPA is, therefore, refusing to take a necessary remedial step to protecting public health under the Act.

III. Claims Will be Redressed by the Relief Sought.

A proper PM Implementation Plan is essential to ensure that legally enforceable measures are conducted to remedy violations of the clean air standards in the South Coast Air Basin. Petitioners Health Organizations seek redress from EPA's approval of the SIP in order to force California to create complete an accurate SIP that meets the requirement of the Clean Air Act, and contains real control measures and proven policies to reach attainment of the PM2.5 standards. This result will not fully remedy the air quality conditions that put Petitioners Health Organizations' members' health at risk, but it will create the basis for solid

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 37 of 65

policies to protect Los Angeles' public health. This result satisfies the test for redressability. *Swan v. Clinton*, 100 F.3d 973, 980 (D.C. Cir. 1996) (holding that partial relief is sufficient for redressability); *see also Defenders of Wildlife v. Gutierrez*, 532 F.3d 913, 925 (D.C. Cir. 2008) ("an order from the district court could redress appellants' injury, at least in part"); *Idaho Rural Council v. Bosma*, 143 F. Supp. 2d 1169, 1177 (D. Idaho 2001) ("an injunction will redress that injury, at least in part").

ARGUMENT

I. EPA'S APPROVAL OF A PLAN THAT DOES NOT INCLUDE A COMPLETE, ENFORCEABLE CONTROL STRATEGY VIOLATES THE CLEAN AIR ACT AND IMPLEMENTING REGULATIONS.

Within three years after the adoption of a primary clean air standard, the Clean Air Act requires states to submit "a plan which provides for implementation, maintenance, and enforcement of such primary standard in each air quality control region (or portion thereof) within such State." 42 U.S.C. § 7410(a)(1). Each SIP submitted "shall include enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance...." 42 U.S.C. § 7410(a)(2)(A). The Administrator must disapprove any part of the plan that does not meet all of the applicable requirements of the Act. 42 U.S.C. § 7410(k)(3).

EPA has explained that "the purposes of a SIP. . . are to make demonstrations (of how attainment, maintenance, and progress will be achieved) and to provide a control strategy that will achieve the necessary reductions and otherwise meet the requirements of the Act." ER-34, 37 [EPA's General Preamble for the Implementation of Title I of the Clean Air Act Amendments, 57 Fed. Reg. 13,498, 13,567 (April 16, 1992) (hereinafter "General Preamble") (setting out the Agency's interpretation of SIP requirements that will be used for future proposed rulemakings)]. EPA unequivocally stated its understanding that if a SIP does not satisfy the requirements identified by the Clean Air Act and described in EPA's regulations, the Clean Air Act requires that "[t]he Agency must disapprove those portions of a SIP submittal that do not meet the applicable requirements of the Act (section 110(k)(3))." *Id.* at 13,566.9

Here, in accordance with the Clean Air Act, California submitted the PM Implementation Plan for the South Coast Air Basin on November 28, 2007. The PM Implementation Plan, however, does not include a complete and enforceable

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⁹ The SIP is the centerpiece of the Clean Air Act's promise to the American people that they will breathe safe and healthful air. That promise is not fulfilled until control measures sufficient to reduce emissions to the level needed to attain the clean air standards are adopted, and compliance with those measures is achieved. By the language Congress chose in the Clean Air Act, by enacting limitations on EPA's prior conditional approval policy, and by the structure of the Act, which triggers various actions intended to remedy a State's failure to submit a fully adequate SIP, Congress has clearly expressed its intent that an attainment SIP not be approved by EPA unless it contains enforceable control measures that provide for attainment.

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 39 of 65

control strategy as required by the Act. The plan approved by EPA identifies only a portion of the emission limitations and control measures needed to provide for attainment of the PM 2.5 clean air standards and then asserts "a commitment" to adopt and implement unspecified measures to make up the rest of the needed reductions before April of 2014. The Clean Air Act, however, requires a complete control strategy that details how attainment will be reached; it does not allow the Administrator to approve a plan that simply "commits" to adopt yet-to-beidentified measures later. Even if this "commitment" to later adopt measures unidentified in the plan was sufficient for approval (which it is not), the "commitment" would fail because it is unenforceable. Such a "commitment" is not a "limitation or control" as defined by the Act, but is instead an aspirational goal. The EPA's approval of this SIP is arbitrary and capricious and, therefore, must be set aside.

A. The Clean Air Act and Accompanying Regulations Require a Complete Control Strategy.

The Clean Air Act requires that an attainment plan's provisions "shall" include enforceable emissions limitations and other control measures sufficient to attain the PM2.5 NAAQS. 42 USC § 7502(c)(6); *see also* 40 C.F.R. § 51.112(a) (an attainment SIP "must demonstrate that the measures, rules, and regulations *contained in it* are adequate to provide for the timely attainment and maintenance of the national standard that it implements." (emphasis added)). Enforceable

emissions limitations and control measures are defined in the implementing regulations as subparts of a "control strategy mean[ing] a combination of measures designated to achieve the aggregate reduction of emissions necessary for attainment and maintenance of national standards. . . ." 40 C.F.R. § 51.100(n); 40 C.F.R. § 51.111.¹⁰

The PM Implementation Plan approved by the EPA identifies the amount of reductions needed for the South Coast Air Basin to meet the PM 2.5 clean air standards by 2015. ER-194 [TSD at 103]. Then, the plan details emission limitations and control measures adopted or proposed for adoption to meet the

¹⁰ Examples EPA provides as examples of control strategy measures include:

⁽¹⁾ Emission limitations.

⁽²⁾ Federal or State emission charges or taxes or other economic incentives or disincentives.

⁽³⁾ Closing or relocation of residential, commercial, or industrial facilities.

⁽⁴⁾ Changes in schedules or methods of operation of commercial or industrial facilities or transportation systems, including, but not limited to, short-term changes made in accordance with standby plans.

⁽⁵⁾ Periodic inspection and testing of motor vehicle emission control systems, at such time as the Administrator determines that such programs are feasible and practicable.

⁽⁶⁾ Emission control measures applicable to in-use motor vehicles, including, but not limited to, measures such as mandatory maintenance, installation of emission control devices, and conversion to gaseous fuels.

⁽⁷⁾ Any transportation control measure including those transportation measures listed in section 108(f) of the Clean Air Act as amended.

⁽⁸⁾ Any variation of, or alternative to any measure delineated herein.

⁽⁹⁾ Control or prohibition of a fuel or fuel additive used in motor vehicles, if such control or prohibition is necessary to achieve a national primary or secondary air quality standard and is approved by the Administrator under section 211(c)(4)(C) of the Act.

⁴⁰ C.F.R. §51.100(n).

NAAQS by 2015. ER-194 [TSD at 103]. There is, however, a large gap of emissions reductions necessary for the South Coast Air Basin to meet the NAAQS by the statutory deadline and the emissions reductions included by the control strategy proposed in the SIP. That is, there are not enough emission limitations or control measures that have been adopted or that have been proposed for adoption in the plan to allow the South Coast Air Basin to achieve the PM 2.5 NAAQS by the April 2015 deadline established in the Clean Air Act. 12

Instead of offering a control strategy that outlines a complete plan for how the South Coast Air Basin will meet its Clean Air Act requirements, the "Plan" states only that CARB and the District will adopt needed measures by 2014. The Plan does not commit to any specific strategy to achieve these reductions. Rather, the EPA states: "CARB and the District commit to adopt measures, which are not specifically identified, to achieve a specific tonnage of emission reductions." ER-17 [76 Fed. Reg. at 69,943]. This promise from CARB and the District—to adopt measures that will fill the gap between what has been adopted or proposed and

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¹¹ The plan actually expresses that limitations and measures needed to meet the clean air standards by 2014 because the Act requires one year of clean data—no exceedances of the standard—prior to the attainment date to establish attainment. 76 Fed. Reg. at 41,564, n. 5 ("While the applicable attainment date for PM2.5 areas with a full five-year extension is April 5, 2015, reductions must be implemented by 2014 to achieve attainment by that date. See 40 CFR 51.1007(b). We, therefore, refer to 2014 as the attainment year and April 5, 2015 as the attainment date.").

¹² Actually, the Clean Air Act set the deadline for meeting the NAAQS for April 2010—a deadline that the South Coast Air Basin has missed. The April 2015 date is a new deadline granted by the EPA in this rulemaking.

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 42 of 65

what needs to be achieved in order to meet the PM2.5 NAAQS – does not meet the clearly established requirements for attainment plans.

B. EPA's Reliance on the Clean Air Act's Narrow Exception for Approving a Plan with an Incomplete Control Strategy is Improper.

While, as the EPA notes, generally "a nonattainment plan should include the adopted measures it relies on to demonstrate attainment...," the Act does create a narrow exception allowing conditional approval "based on a commitment of the State to adopt specific enforceable measures by a date certain, but not later than 1 year after the date of approval of the plan revision." *See* ER-188 [TSD at 74]; 42 U.S.C. § 7410(k)(4). Such approval, however, is allowed only when the commitment is limited in scope. *See generally*, ER-192 [TSD at 96]. Here, the EPA's approval must be set aside because it neither meets the requirements of the Act (as explained above), nor does it fall within the EPA's stated "three-factor test" it purports to have used to determine whether the "commitments" fall under this limited commitments exception.

EPA states it uses a "three-factor" test to decide whether to approve enforceable commitments: "[o]nce EPA determines that circumstances warrant consideration of an enforceable commitment, EPA considers three factors in determining whether to approve the [Clean Air Act] requirement that relies on the enforceable commitment: (a) Does the commitment address a limited portion of the CAA requirement; (b) is the state capable of fulfilling its commitment; and (c) is

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 43 of 65

the commitment for a reasonable and appropriate period of time." ER- 32 [76 Fed. Reg. at 41,576]. "EPA's three-factor test ensures that a state's use of commitments is limited in time and scope and capable of being achieved as part of its overall plan." *Environmental Defense v. U.S. EPA*, 369 F.3d 193, 209-10 (2nd Cir. 2004) ("*Environmental Defense*"). Here, EPA's decision to approve the plan's reliance on a "commitment" to adopt emission limitations is fatally flawed because (1) the "commitment" is not for a limited portion of what is needed to reach attainment; (2) it is doubtful that the State will be able to fulfill its "commitment"; and (3) the time to fulfill the "commitment" is not enough time for the State to achieve the necessary reductions.

First, EPA looks to see if the commitment is for a limited portion of a statutory requirement—in this case, the amount of emission reductions needed in the South Coast Air Basin to attain the clean air standards. *Environmental Defense*, 369 F.3d at 209-10 ("EPA's three-factor test ensures that a state's use of commitments is limited in time and scope and capable of being achieved as part of its overall plan."). In considering this prong of the test, the Fifth Circuit found that a commitment for 6% of the total emission reductions needed to support the standard was sufficiently limited to weigh in favor of approval. *BCCA Appeals Group v. U.S. EPA*, 355 F.3d 817, 839-40 (5th Cir. 2003) ("*BCCA*"); *see also Environmental Defense*, 369 F.3d at 209 (9.1% of the total VOC emission reductions and 0.8% of the NOx emission reductions was sufficiently limited).

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 44 of 65

Here, however, the State's "commitment" is 11% of the NOx reductions (70.5 tpd), *plus* 7% of the VOC reductions (24 tpd), *plus* 8% of the direct PM2.5 (1.3 tpd) reductions need to attain the standards for the South Coast Air Basin. ER-194 [TSD, Table F-10, at 103]. It is important to note that because of the amount of pollution emitted into the air of the South Coast basin, these percentages correspond to large amounts of necessary reductions in tons per day of emissions—

Total reductions remaining as commitments	NOx	VOC	PM2.5	SOx
Percent of total reductions	11%	7%	8%	0%
Tons per day of reductions	70.5	24	1	

ER-194 [TSD, Table F-10, at 103].

In *BCCA*, the state had to reduce 56 tons per day ("tpd") of NOx emissions within 7 years of EPA's approval. Here, the reduction is 70.5 tpd to be achieved within 3 years of EPA's approval—that is over 25% more pollution reductions in less than half as much time, and this is only for the required NOx reductions. The VOC and PM2.5 reductions are also significant. Together, these commitments hardly account for a "limited" or minimal portion of the required reductions.

Moreover, EPA historically has only approved commitments within a 10% range of emission reductions. ER-18 [76 Fed. Reg. at 69,944]. The 11% commitment for NOx exceeds this historical threshold and therefore is contrary to EPA's own policies of approval. EPA's "approximation" that 11% is within the

10% historical range (ER-18 [76 Fed. Reg. at 69,944]) not only trivializes the task of achieving 70 tpd of NOx reductions over the next two years, it also ignores the fact that the 70 tpd of NOx commitment is in addition to another 7% of VOC and 8% of PM2.5 reduction commitments.¹³

Second, the state must prove it is capable of fulfilling the commitments. ER-32 [76 Fed. Reg. at 41,576]. The state must "provide[] EPA with sufficient information to assure EPA that it will be capable of adopting controls to achieve the necessary level of emission reductions." BCCA Appeals Group, 355 F.3d at 841. For instance, in BCCA Appeals Group, the Fifth Circuit found that approval of the SIP in that instance was reasonable because the commitments made up only 6% of the total reductions needed, and because the state (Texas) provided EPA with "a list of soon-to-be available, cutting edge technologies that would achieve at least 56 tons/day of NOx emission reductions by the statutory deadlines." Id. "EPA considered the possibilities Texas submitted with its SIP and determined that the state is capable of adopting these "cutting-edge" controls to achieve the standard." Id at 841-42. Similarly, in Environmental Defense, New York "advised EPA it would be adopting six specific regulations based on the Ozone Transfer Commission's recommendations. EPA considered these submissions in

¹³ For perspective, in 2011 the EPA found that the South Coast Air Basin failed to attain the 1-hour ozone standard (which requires reductions in NOx and VOCs). That standard was established in 1979 with an attainment date of November 2010. In other words, given a period of over 3 decades, the state was unable to come up with enough reductions to meet the standard. See 76 Fed. Reg. at 82,133.

conjunction with New York's overall emissions control strategy," and "predicated on its understanding that New York intended to adopt the control measures recommended by the Ozone Transport Commission," and that the measures had already been proposed and were in the process of approval.

New York's plan does not lack any substantive elements required of a plan, and most importantly, its enforceable commitments consisted of proposed regulations that were specific enough to allow EPA to evaluate their likely efficacy and contribution to the plan as a whole The broader issue is whether New York had submitted sufficient information by the deadline for EPA to perform its role in assessing the completeness and reasonableness of the state's plan. The enforceable commitments, intended to close a small gap between measured results and the national air quality standards, included progress statements by the state that assured EPA of the specific measures it would take, such as acceptance of the Ozone Transport Commission's recommendations. New York had in fact already begun the process of adopting its additional provisions before its plan was finally approved.

Id. at 208-11.

Here, however, rather than telling the EPA *how* the reductions will be accomplished as Texas and New York did, California simply asserts that it is committed to achieving the necessary reductions. Affirming that the "District is also continuing to work to identify and adopt additional measures that will reduce emissions," or suggesting that an emission reduction commitment could be achieved through "[o]ther alternative measures that [CARB] had not considered at the time the SIP was adopted," is not the same as providing EPA a list of soon-to-be available technologies the State is capable of adopting in time to meet the standard, or providing a list of specific measures already in the process of being

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 47 of 65

adopted. ER-32 [76 Fed. Reg. at 41,576]; ER-190 [TSD at 89]. Unlike New York and Texas, California did not submit "sufficient information by the deadline for EPA to perform its role in assessing the completeness and reasonableness of the state's plan." *Environmental Defense*, 369 F.3d at 211.

Under the third factor, EPA considers whether the commitment is for a reasonable and appropriate period of time. ER-33 [76 Fed. Reg. at 41,577]. The PM Implementation Plan "commits" to adopting yet-to-be-identified measures by April 2014. It seems unlikely that the reductions of the magnitude remaining—70.5 tpd of NOx, 11 tpd of VOC and 1.3 tpd of PM2.5—can be achieved in less than two years without a plan more focused and robust than the vague "commitment" to somehow get the needed reductions.

In *BCCA Appeals Group*, the Fifth Circuit Court of Appeals held that Texas' two-tiered fixed timetable for adopting additional controls was reasonable and appropriate since it was as expeditious as possible given the technological circumstances. *BCCA Appeals Group*, 355 F.3d at 841. Texas committed to adopt all needed controls (the remaining 6% of NOx reductions) to achieve the remaining reduction within 2 ½ years of the plan approval, with a final adoption date, May 1, 2004, occurring over three years before the attainment date in November 2007. 66 Fed. Reg. 57160, 57178 (Nov. 14, 2001). Here, EPA fails to explain how in the context of an approval at the end of 2011, CARB and the District will be able to complete even the requisite rulemaking process for far more reductions, much less

actually achieve the necessary reductions, by 2014, in order to show attainment by April 5, 2015. (See supra, fn. 11, noting that Act requires one year of "clean" data"—no exceedances of the standard—prior to the attainment date to establish attainment.). The magnitude of this task is confirmed by the TSD, which notes that "as a result of these State and District efforts, most sources in the South Coast nonattainment area were already subject to stringent rules prior to the State Strategy's and the South Coast 2007 AQMP's development, leaving fewer and more technologically challenging opportunities to reduce emissions in the nonattainment area." ER-193 [TSD at 102]. For example, between 2007 and 2011, the SCAOMD and CARB achieved approximately 63 tpd reduction of NOx from new measures. ER-189, 191 [TSD at 82, 95]. Given that this 63 ton reduction was achieved over an approximate four-year period, despite the EPA and State claiming "fewer and more technologically challenging opportunities," the TSD and Final Rule fail to explain how this task is actually achievable.

In sum, the Clean Air Act requires SIPs to contain enforceable measures to reach attainment. Without more specific proposals, California's total tonnage reduction commitments are nothing more than aspirational goals. EPA's approval of these "commitments" violated the Clean Air Act.

C. Even if the Court Finds These "Commitments" Formed a Complete Control Strategy, They are Unenforceable.

The Clean Air Act requires not only that the plan include sufficient

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 49 of 65

emissions limitations and control measures to meet attainment, but also that its limitations and measures be enforceable. 42 U.S.C. § 7502(c)(6).

Courts "may only enforce specific SIP strategies, and may not enforce a SIP's... aspirational goals." *Bayview Hunters Point Community Advocates v. Metropolitan Transp. Comm'n*, 366 F.3d 692, 701 (9th Cir. 2004) ("*Bayview*"); *see also Citizens for a Better Environment v. Deukmejian*, 746 F. Supp. 976, 980 (N.D. Cal. 1990) ("*CBE v. MTC*") (courts can only enforce "express" or "specific" strategies for attaining CAA standards). Mere approval of an aspirational goal or non-specific promise into the SIP does not convert that goal or promise into an enforceable commitment. *See El Comité Para El Bienestar de Earlimart v. Warmerdam*, 539 F.3d 1062, 1067 (9th Cir. 2008) ("*Warmerdam*"); *see also Bayview Hunters Point*, 366 F.3d at 703 (EPA's opinion letter interpreting a SIP provision as mandatory and enforceable was irrelevant because the SIP's "plain language" concerning the provision was merely aspirational). 14

The content of SIPs are enforceable by citizens via the Clean Air Act's citizen suit provision, 42 U.S.C. § 7604, which provides jurisdiction to the District

¹⁴ *Compare* the facts at issue here to those in *CBE v. Deukmejian*, where Defendants EPA and the Bay Area Air Quality Management District, among other state agencies, contended "that the emission levels shown in the RFP [Reasonable Further Progress] graph merely represent unenforceable 'goals.' Reasonable further progress, they [Defendants] argue, should be measured solely by whether defendants have adopted measures that, in aggregate, will reduce emissions from specific sources by 85 tpd, whether or not this results in an emissions level." (The court ultimately decided it did not need to rule on this issue.) *Citizens for a Better Environment v. Deukmejian*, 746 F.Supp. 976, 981-82 (N.D.Cal. 1990).

Court for challenges of a violation of a "standard or limitation" contained in a SIP. Thus, citizens who wish to enforce the commitment could only do so if it is a "standard or limitation" under this section. *Natural Resources Defense Council v. South Coast Air Quality Management District*, 651 F.3d 1066, 1071-72 (9th Cir. 2011). While EPA asserts that the "commitments" are "standards or limitations," its assertion is, unfortunately, incorrect. ER-16 [76 Fed. Reg. at 69,942]. Rather, the commitment merely reasserts a duty already required by the Act—to reduce emissions enough to attain the NAAQS as expeditiously as practicable (42 U.S.C. § 7502(a), (c))—a requirement of the Act which, in itself, is unenforceable; ¹⁵ hence the need for specific, enforceable control strategies.

The Clean Air Act offers several definitions of "emissions standards or limitations," which do not apply here. Section 304(f) defines it, in relevant part, as "(1) a schedule or timetable of compliance, emission limitation, standard of

¹⁵ See e.g., Del. Valley Citizens Council for Clean Air v. Davis, 932 F.2d 256, 266 (3d Cir. 1991) (holding that Clean Air Act Section 172 [42 U.S.C. § 7502, Nonattainment Plan Provisions] did not "deal with emission standards or limitations" but rather "outline[d] what an implementation plan must contain to get EPA approval," and citing Plan for Arcadia, Inc. v. Anita Assocs., 501 F.2d 390 (9th Cir. 1974) "for the proposition that § 7604 is not available for purely statutory violations of the Act unless standards or orders in accord with the Act are extant."); see also NRDC v. SCAQMD, 651 F.3d at 1072 (The Clean Air Act's requirement for plans in nonattainment areas (in this case, section 173(c)) "place[] requirements on SIPs, and SIPs then set requirements for obtaining permits, which in turn may have their own conditions or requirements. It is those requirements established under the SIP that are the subject of these provisions of § 7604(f)(3), (4), not § 173(c) itself. See Romoland, 548 F.3d at 754 (Section 304(f)(4) does not permit citizen suits alleging 'violation of the CAA" and instead applies to "a term or condition of the permit . . . issued.').").

performance or emission standard." 42 U.S.C. § 7604(f). The State's "commitment" to tonnage reductions are none of these. The Act defines "schedule or timetable of compliance" as "a schedule of required measures including an enforceable sequence of actions or operations leading to compliance with an emission limitation, other limitation, prohibition, or standard." 42 U.S.C. § 7602(p). The "commitments" EPA has approved here do not include any "required measures" or "enforceable sequence of actions or operations." All of the rest of the terms in the statute reference requirements for specific sources and standards in other words, the types of requirements that would be in specific rules or permit conditions.¹⁶ The closest analogue to the commitments here is the "schedule for plan submissions," 42 U.S.C. § 7502(b), because the commitments merely commit California to adopt rules to achieve enough reductions by 2014 to meet the NAAQS. Unfortunately, as noted above, that section is unenforceable under Section 304 of the Act.

Further, EPA asserts that the "commitments" are enforceable by the EPA under section 113 of the Act. *See* ER-16 [76 Fed. Reg. at 69,942]. Setting aside

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¹⁶ The terms "emission limitation" and "emission standard" "mean a requirement established by the State or the Administrator which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis, including any requirement relating to the operation or maintenance of a source to assure continuous emission reduction, and any design, equipment, work practice or operational standard promulgated under this chapter," while "standard of performance" "means a requirement of continuous emission reduction, including any requirement relating to the operation or maintenance of a source to assure continuous emission reduction." 42 U.S.C. §§ 7602(k), (l).

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 52 of 65

whether this assertion is correct, as a practical matter the "commitments" are not enforceable because the time when the measures are to be adopted—the beginning of 2014—is only one year before the date when the area must show attainment.

II. EPA UNLAWFULLY APPROVED THE PLAN DESPITE UNDISPUTED EVIDENCE THAT NEAR HIGHWAY COMMUNITIES WILL NOT BREATHE AIR THAT MEETS CLEAN AIR STANDARDS.

EPA goes to painstaking ends to never answer the question of whether near highway communities in the South Coast Air Basin will breathe air that meets federal clean air standards for PM2.5. EPA provides not even one shred of evidence rebutting evidence in the record that concentrations near highways are higher than background levels. In fact, what little evidence EPA does provide about near highway concentrations actually supports Health Organizations' claims. Given that the Clean Air Act does not exempt from its air quality requirement those areas near highways, EPA's approval of the PM Implementation Plan that does not model attainment in near highway zones is arbitrary and capricious and must be set aside.

A. Evidence of PM2.5 Concentrations is Relevant.

The Ninth Circuit recently interpreted the conformity rule, which is the provision of the Clean Air Act that ties transportation planning to air quality planning, to mean the following:

The plain-text meaning of the rule is clear: For budgets concerning milestone years, reasonable further progress requirements are relevant; *for*

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 53 of 65

budgets concerning the attainment year, attainment requirements are relevant; and for budgets concerning maintenance years, maintenance requirements are relevant.

Natural Resources Defense Council v. EPA, 638 F.3d 1183, 1193 (9th Cir. 2011) (emphasis added); see also 40 C.F.R. § 93.118(e)(4). Indisputably, the plan revision at issue in this litigation concerns attainment of the annual and 24-hour PM2.5 standard, which makes evidence about attainment relevant for Clean Air Act purposes. Moreover, the Clean Air Act requires that a SIP "assur[e] air quality within the entire geographic area comprising such State by submitting an implementation plan for such State which will specify the manner in which [NAAQS] will be achieved." 42 U.S.C. § 7407(a). Thus, evidence about failure of the PM Implementation Plan to attain in the entire geographic area is relevant to approving the Emissions Budgets at issue in this litigation and overall approval of the PM Implementation Plan.

1. Petitioners Provided Credible Scientific Evidence that Emissions Near Highways are Higher than Emissions From Background Monitors.

During both sets of comments provided on the rulemakings on the PM Implementation Plan, Health Organizations provided significant and credible scientific evidence that emissions levels near highways were elevated. ER-80-95, 108-121. Notably, EPA does not dispute this evidence of elevated PM2.5 levels near highways, nor does it discredit estimates that more than a million people live in the high pollution zone from highways. Instead, EPA makes two arguments as

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 54 of 65

to why it can ignore this information: (1) the Clean Air Fine Particulate

Implementation rule requires that "states prepare attainment demonstrations
through modeling that is 'consistent with EPA's modeling guidance,' and the
modeling guidance explains that future air quality should be estimated at current
monitoring sites" and (2) it has previously approved the Annual Monitoring
Network Plan for years 2007 through 2010. ER-20 [76 Fed. Reg. at 69,946].

Neither of these arguments permit EPA to ignore this information.

EPA tries to have it both ways. On one hand, it argues that attainment will be achieved "throughout the entire nonattainment area" and on the other hand it states it need not look at the elevated levels of particulate pollution near highways. ER-206 [TSD at 167]. To further these contradictory conclusions, EPA selectively picks information from Guidance that was issued after the PM2.5 Implementation Rule was published. See ER-42 [Guidance on the Use of Models and Other Analyses for Demonstrating Attainment of Air Quality Goals for Ozone, PM2.5, and Regional Haze, (2007 Guidance Manual)]. According to the 2007 Guidance *Manual*, there are two components in an attainment demonstration: 1) a modeled attainment test, and 2) supplemental analyses. ER-61 [2007 Guidance Manual at 15]. EPA claims that the PM Implementation Plan had fully compliant modeled attainment test and supplemental analysis. ER-20 [76 Fed. Reg. at 69, 946]. However, since neither of these analyses account for the levels of pollution near highways, they cannot remedy the failures of EPA to consider relevant evidence.

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 55 of 65

i. Modeled Attainment Test Does Not Take Into Account Concentrations in Near Highway Environment

First, the modeled attainment demonstration relies solely on monitors outside of the zone of heavily trafficked roadways. ER-119-121. Thus, even though the monitors may be predicted to show attainment, they are not placed in a manner to register primary particulate pollution from highways.

The importance of the placement of the monitors is best described by EPA itself in the 2007 Guidance Manual as follows—

Focusing the modeled attainment test only at monitoring sites could result in control targets which are too low if the monitoring network is limited or poorly designed. We recommend a test which includes a review of the strategy's impact at locations without monitors. This exercise provides a supplemental test to determine whether there is a need for further action despite passing the modeled attainment test at all monitoring sites. While this test may indicate potential unmonitored violations, ultimately, the best way to account for a limited or poorly designed monitoring network is to use the model results, or other available analyses, to help determine locations where additional monitors should be sited.

ER-59-60 [2007 Guidance Manual at 9-10]. As the EPA clearly acknowledges, failing to monitor particulate pollution near highways—an area that is currently completely without monitors—can lead to the faulty assumption that a region has attained the relevant standard. Further, this faulty assumption precludes development of needed control strategies to remedy violations of clean air standards near highways. Fortunately, the 2007 Guidance Manual recommends supplemental analysis to cure flaws in modeling. This is especially crucial in a

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 56 of 65

situation like the one in the South Coast Air Basin, where attainment is predicted by such thin margins. ER-182 [TSD at 53].

ii. The Supplemental Analysis Fails to Address Near Highway Emissions.

Second, EPA cannot rely on the "supplemental analysis" performed to show attainment near major roadways. In the supplemental analysis EPA purports that attainment will be achieved in all areas by using modeling of a resolution of 5km grid cells that is averaged over a 225 square kilometer area. ER-121. Using such large areas makes it impossible to know what the impacts of directly emitted particles from highways would have on air quality in neighborhoods within approximately 300 meters of these highways. EPA claims this approach of using such large areas to average pollution concentration is adequate because "the guidance recommends an unmonitored analysis at 12km or finer resolution for the annual PM2.5 NAAQS, and 4 km or finer resolution for the 24-hr PM2.5 NAAQS." ER-203 [TSD at 164]. The EPA's guidance document, however, does not displace the requirements of the Clean Air Act. The Clean Air Act, and Congress' intent in adopting the Clean Air Act, is clear: the entire region is to attain the established clean air standards. Here, EPA seems to fundamentally misunderstand the role of large-scale modeling in determining compliance with the Act's requirements. Large-scale modeling is a tool to predict attainment over a large area that is more efficient than monitoring every inch of the area. This type

of modeling is not, however, supposed to be used to hide areas that fail to attain. As Health Organizations point out in the their comments, there are small scale modeling tools available. ER-122. In the face of the clear evidence presented by Health Organizations—as well as the EPA's own finding regarding elevated levels of air pollution near highways—it is arbitrary and capricious for EPA to approve a plan that does not show that those areas will attain the PM2.5 clean air standard.

Further, the 2007 Guidance Manual articulates that "the procedure we recommend recognizes [uncertainty with model results and projections] by including modeling plus other analyses to determine whether all available evidence supports a conclusion that a proposed emission reduction plan will suffice to meet the NAAQS." ER-61 [2007 Model Guidance at 19] (emphasis added). Here, EPA has failed to show that all evidence supports the conclusion that the clean air standard will be met because there is data showing that the NAAQS will not be met near highways. The EPA cannot simply ignore inconvenient data. Here, the EPA has clearly failed to show any rational connection between the facts in the record and its decision to approve the PM Implementation Plan. This failure is clearly arbitrary, capricious and not in accordance with the law.

2. Clear and Undisputed Evidence in the Record Contradicts EPA's Attainment Conclusions.

EPA's weight of evidence analysis, which it is required to conduct when, as here, the margin of the modeled prediction of attainment is so thin, included a

summary of data collected by the SCAQMD near the I-710 highway. ER-184-185 [TSD at 55-56]. The results of SCAQMD's study show that in a winter month the monitor closest to the I-710 highway registered a PM2.5 value that was approximately 31% higher than the background monitor selected. ER-179 [TSD at 50]. For the summer month monitored, the value at the monitor closest to the roadway was 19% higher than the background monitor. ER-179-180[TSD at 50-51]. This evidence of air pollution concentrations near highways shows that it is highly likely that significant portions of the South Coast Air Basin will not meet the PM standards. EPA is not free to approve a Plan that embraces a modeling strategy that masks these findings.

B. EPA Has Not Found Relevant Facts.

Health Organizations understand that when an "analysis of the relevant documents requires a high level of technical expertise," the Court must "defer to the informed discretion of the responsible federal agencies." *See Sierra Club v. EPA*, 346 F.3d 955, 962 (9th Cir. 2003) (Court determining that EPA's conclusion

¹⁷ For reference, the following table summarizes the values found during the South Coast Air Quality Management District's monitoring study:

	15 meters	80 meters	Background (N.
			Long Beach
			Monitor)
Winter	12.6	11.5	9.59
Measurements			
Summer	15.2	14	12.7
Measurements			

ER-179-180 [TSD at 50-51].

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 59 of 65

that Imperial County would meet the 24 hour PM10 standard "runs counter to the evidence before the agency."). However, the Court "may not defer to an agency decision that "is without substantial basis in fact." *Id.* 961. Here, EPA has failed to provide the substantial basis in fact that the large number of people residing near highways will breathe air that meets the clean air standards. By simply asserting that the plan complies with the modeling guidance, EPA attempts to skirt its duty to base its determination of whether the PM Implementation Plan will meet the Act's health-based standards upon the evidence in this record.

The Clean Air Act requires that a clean air plan "assur[e] air quality within the entire geographic area comprising such State by submitting an implementation plan for such State which will specify the manner in which [NAAQS] will be achieved." 42 U.S.C. § 7407(a). The PM Implementation Plan does not satisfy the statutory mandate that all areas be protected if it only provides for attainment outside of the near highway areas. Before giving effect to the emissions budgets and determining that the plan will provide for attainment, EPA must determine that the PM Implementation Plan will provide for attainment in neighborhoods within the 300 meter high pollution zone near highways. The demonstration in the submitted SIP that the clean air standards will be met in areas not within the 300 meter high pollution zone near major highways does not satisfy the statutory obligation to "specify the manner in which [NAAQS] will be achieved" in the near-highway high risk zone.

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 60 of 65

This Court has held it must "set aside an agency action if [it] find[s] that the agency has ... ignored factors that must be taken into account under any [governing] source[] of law." Cerillo-Perez v. INS, 809 F.2d 1419, 1422 (9th Cir. 1987) (citation omitted). Agency action is "arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider, [or] entirely failed to consider an important aspect of the problem." Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto Ins. Co., 463 U.S. 29, 43 (1983); see also Environmental Defense Fund, Inc. v. EPA, 898 F.2d 183 (D.C. Cir. 1990) (agency decision remanded for failure to address all statutory factors). EPA has entirely failed to consider the facts presented by Health Organizations and SCAQMD's short-term I-710 study showing that the SIP will not provide for attainment near major highways. Moreover, EPA has failed to reconcile the completely conflicting information it had before it.

An agency action is arbitrary and capricious if the agency failed to "examine the relevant data and articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made." *State Farm*, 463 U.S. at 43 (quotation omitted). "[A]n agency must cogently explain why it has exercised its discretion in a given manner and that explanation must be sufficient to enable us to conclude that the [agency's action] was the product of reasoned decisionmaking." *A.L. Pharma v. Shalala*, 62 F.3d 1484, 1491 (D.C. Cir. 1995) (internal quotation omitted); *NRDC v. EPA*, 526 F.3d 591, 607-08 (9th Cir. 2008).

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 61 of 65

Here EPA has failed to cogently explain how data presented by Petitioners and the

I-710 short-term study developed by the SCAQMD are compatible with its

determination that the region will attain the NAAQS in all areas. In fact, EPA's

concludes that the I-710 Study "do[es] show an incremental decrease in PM2.5

concentrations with distance to roadways." ER-185 [TSD at 56]. Even though

EPA brushes off this data by claiming the I-710 is congested and may provide a

worst case scenario, the ultimate conclusion made by EPA that PM2.5

concentrations are higher closer to the roadway supports Health Organizations'

conclusions that near highway communities will not attain the standard, and clearly

is at odds with the conclusion that attainment will be met in the entire area.

Accordingly, EPA's decision fails the most basic tests for reasoned

decisionmaking.

CONCLUSION

For the foregoing reasons, the Court should vacate and remand approval of

the PM Implementation Plan and the emissions budgets and remand to the matter

to EPA with instructions.

Petitioners also respectfully request that they be awarded the costs of

litigation, including reasonable attorneys fees, pursuant to 42 U.S.C. § 7607(f).

Dated: July 13, 2012

/s/ Adriano L. Martinez

ADRIANO MARTINEZ

Natural Resources Defense Council

49

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 62 of 65

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Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 63 of 65

STATEMENT OF RELATED CASES

Petitioners are unaware of any related cases pending in this Court.

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 64 of 65

CERTIFICATE OF COMPLIANCE

I certify that pursuant to Rule 32(a)(7)(C) of the Federal Rules of Appellate

Procedure and Ninth Circuit Rule 32-1 and Ninth Circuit Rule 28-4, the attached

brief is proportionally spaced, has a typeface of 14 points of more, and contains

12,513 words, exclusive to those parts of the brief exempted by Rule

32(a)(7)(B)(iii). I have relied on Microsoft Word's calculation feature to calculate

the word limit.

Dated: July 13, 2012

/s Adriano Martinez

ADRIANO MARTINEZ

52

Case: 12-70079 07/13/2012 ID: 8250478 DktEntry: 23-1 Page: 65 of 65

PROOF OF SERVICE

I am employed in the County of Los Angeles, State of California. I am over the age of 18 and not a party to the within action. My business address is: 1314 Second Street, Santa Monica, California 90401.

On July 13, 2012, I electronically filed the foregoing document, PETITIONERS' OPENING BRIEF, with the Clerk of the Court for the United States Court of Appeals for the Ninth Cirucit by using the appellate CM/ECF system. I certify that the below participants in this case registered as CM/ECF users will receive electronic service accomplished by the appellate CM/ECF system. I also certify that those listed below who are not registered as CM/ECF users will receive the exact same document filed with the CM/ECF system by electronic service via email and USPS.

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I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed on July 13, 2012 at Los Angeles, California.

/s Gopi Shah **GOPI SHAH**